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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,165	07/20/2001	Hiroshi Kuzuyama	5000-4915	1876

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EXAMINER

KIM, CHRISTOPHER S

ART UNIT PAPER NUMBER

3752

DATE MAILED: 02/09/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,165

Applicant(s)

KUZUYAMA, HIROSHI

Examiner

Christopher S. Kim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,9-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3 and 9-14 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Amendment filed November 24, 2003 is acknowledged.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

3. The drawings were received on November 24, 2003. These drawings are acceptable.

Claim Rejections - 35 USC § 112

4. Claim 13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites "an injection mechanism" which appears to be a double inclusion of the "first cylindrical member" and/or "needle valve" recited in claim 1

Claim 13 recites "a pressure increasing mechanism" which appears to be a double inclusion of the "fourth cylindrical member" and/or "plunger" recited in claim 1

Claim Rejections - 35 USC § 102

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 9, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by DeLuca (6,007,000).

With respect to claims 1, 11 and 13:

DeLuca discloses a fuel injector comprising:

a nozzle body having a needle valve 11, and a tubular sleeve portion 21;

a first cylindrical member 10;

a second cylindrical member 8;

a third cylindrical member 6;

a fourth cylindrical member 3;

wherein a gap between the third cylindrical member 6 and the tubular sleeve portion 21 is smaller than a gap between the fourth cylindrical member 3 and the tubular sleeve portion 21.

With respect to claim 9:

Element 8 is considered to represent the second and third cylindrical members.

7. Claims 1 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Niethammer et al. (6,371,382).

Niethammer et al. discloses a fuel injector comprising:

a nozzle body having a needle valve 27, and a tubular sleeve portion 45;

a first cylindrical member 22;

a second cylindrical member 44;

a third cylindrical member 42;

a fourth cylindrical member (lower portion of 24 within sleeve portion 45);

wherein a gap between the third cylindrical member 42 and the tubular sleeve portion 45 is smaller than a gap between the second cylindrical member 44 and the tubular sleeve portion 45.

8. Claims 1, 3 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Camplin et al. (5,632,444).

Camplin et al. discloses a fuel injector comprising:

a nozzle body having a needle valve 118, and a tubular sleeve portion 122;

a first cylindrical member 120;

a second cylindrical member 112;

a third cylindrical member 80;

a fourth cylindrical member 44;

wherein a gap between the third cylindrical member 80 and the tubular sleeve portion 122 is smaller than a gap between the fourth cylindrical member 44 and the tubular sleeve portion 122.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeLuca (6,007,000).

DeLuca discloses the claimed invention except for third and fourth cylindrical members are formed as one piece. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided an integral third and fourth cylindrical members, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

Allowable Subject Matter

10. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments filed November 24, 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that DeLuca does not teach a third cylindrical member disposed within the straight portion, DeLuca teaches a third cylindrical member 6 in straight portion of sleeve portion 21.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (703) 308-8336. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Y. Mar can be reached on (703) 308-2087. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9302.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



Christopher S. Kim
Primary Examiner
Art Unit 3752

CK